



*'We bring people to space — We bring space to people'*



Photo by Doug Stoffer, NASA/Marshall Space Flight Center

### **Center directors meet at Marshall**

Directors from seven NASA centers visited Marshall Feb. 14. They are, from left, Harry McDonald of Ames Research Center in Mountain View, Calif.; Del Freeman of Langley Research Center in Hampton, Va.; Don Campbell of Glenn Research Center in Cleveland, Ohio; George Abbey of Johnson Space Center in Houston; Marshall Center Director Art Stephenson; Roy Estes of Stennis Space Center in Mississippi; Kevin Petersen of Dryden Flight Research Center at Edwards, Calif.; and Roy Bridges of Kennedy Space Center in Florida.

## Atlantis returns home

The Space Shuttle Atlantis landed safely at Edwards Air Force Base in California Tuesday after mission controllers decided that thick clouds might interfere with a safe landing at the Kennedy Space Center.

During their 13-day mission, Atlantis' crew delivered the U.S. laboratory module to the International Space Station.

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*U.S. Rep. Bud Cramer congratulates Marshall Center in Congressional remarks. See page 4.*

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In addition to providing the cornerstone for scientific research aboard the Space Station, the lab houses computers that will control the Space Station's attitude.

Atlantis was originally scheduled to land Sunday at Kennedy, but heavy winds at the main and backup landing sites delayed the landing.

## Marshall engineers testing propulsion system for X-38

by Debra Valine

Now that the International Space Station is inhabited full-time, and the research module Destiny is in place for science to begin, Marshall workers are turning their attention to developing the propulsion system that will carry the crew away from the Space Station in the event of an emergency.

The current crew escape vehicle — the Soyuz capsule — was developed by Russia, and will provide crewmembers a means of evacuation during the first few years of the Space Station.

The replacement for that vehicle is the X-38 Crew Return Vehicle. The Marshall Center is responsible for the propulsion system.

A team of engineers is testing a full-scale model of that propulsion system with water using a technique called cold flow testing. Using water gives them similar results to what they would get using actual propellant. "We've built this model as close, geometrically, as we can get to the actual flight propulsion

*See X-38 on page 2*



Photo by Terry Leibold, NASA/Marshall Space Flight Center

**Rick McLeroy, left, and Tony Yarbrough prepare a thruster module for cold flow testing at the component development area in Bldg. 4656.**

# Marshall expert teaches future Space Station crews to operate high-definition video camera

by Debra Valine

**M**arshall's Walt Lindblom of Computer Sciences Corp., is teaming with Lockheed Martin of Houston, and Teledyne Brown Engineering of Huntsville, to ensure astronauts on future visits to the International Space Station know how to operate high-definition video cameras.

The equipment — to be launched in July on STS-105 — was supplied to NASA under the agreement with Dreamtime Holdings Inc. at Ames Research Center in Mountain View, Calif. NASA and Dreamtime formed a partnership June 2, 2000, making it the first commercial agreement of its kind in NASA.

The agreement includes provisions to provide high-definition television coverage of astronaut activities aboard the International Space Station and on Space Shuttle missions. It also will create an easily accessible, Web-searchable digital archive of the best of NASA's space imagery.

Lindblom — who wrote the "how to" manual for the system — recently returned from Johnson Space Center where he taught the second two-hour class for astronauts and their backups. His introduction to high-definition photography includes instructions on how to set up and use the camera. Follow-on training will help astronauts with photo-enhancing techniques.

"We have a camera available at Johnson, supplied by Marshall's Digital Television Project Office," Lindblom said. "Astronauts can use the camera for training as opportunities arise. It will be available for all mission simulations for the Expedition 3 crew."

The high-definition cameras are similar to broadcast quality video cameras in that they have to be manually adjusted for color balance and focus, where consumer quality cameras are automatic. The cameras weigh about 20 pounds.



Courtesy photo

**Cosmonaut Valery Korzun, left, and astronaut Frank Culbertson, center, train on the high-definition camera with Walt Lindblom of Computer Sciences Corp.**

"High-definition is the future of television," Lindblom said. "Through the agreement with Dreamtime, we are starting to document Space Station activities in a video format that will last a lot longer than the current format. This technology can make images last virtually forever."

The cameras are also being explored for use in microgravity and Earth science.

"We have an optical window to shoot out of that is always pointed at Earth," Lindblom said. "We will be getting great images with great detail that will be used to study changes in the Earth."

## X-38

*Continued from page 1*  
system," said Jeff Litton, the project test manager who works in the Space Transportation Directorate. "We're testing for unforeseen system interactions."

The X-38 Crew Return Vehicle uses a lifting body design that was proven and tested in the 1970s. Some parts for the vehicle can be purchased over-the-counter, using existing technology rather than inventing technology from scratch. The vehicle is expected to launch in 2002.

The propulsion system will provide de-orbiting capability, as well as the ability to maneuver the vehicle, Litton said. "We will have four sets of thrusters that will allow the X-38 to maneuver. To move it in a specific direction, you would fire a specific thruster or thrusters."

Individual thruster testing is being conducted in a refurbished lab in Bldg. 4656. The lab was previously used to test the Solid Rocket Booster Thrust Vector Controls. It has been upgraded to provide a laboratory for future development and testing of various components. The full-

scale cold flow test will take place at the West Test Area.

"Ours is the second of a series of tests to be conducted in the newly developed equipment test lab," Litton said. "We started receiving the valve hardware in October 2000," Litton said. Plans are to attach the valves to the mockup and begin testing the propulsion system model within a month.

*The writer, employed by ASRI, is the Marshall Star editor.*

# New text analysis, indexing tool available to NASA community

In step with the ever-increasing volume of available information is the greater need for tools to assist in the analysis, classification and management of that information.

A new Web-based tool for analyzing the subject content of documents — Machine Aided Indexing — has been released by the Center for AeroSpace Information for use by the extended NASA community.

## What is Machine Aided Indexing?

Machine Aided Indexing was originally developed as an aid to indexing technical literature for the NASA Scientific and Technical Information database.

The new Web-based application was developed in cooperation with the Langley Research Center in Hampton, Va., to provide authors, editors, information analysts and others with a convenient, fully interactive tool for identifying keywords and terms.

At the heart of the application is a language processor that can accept any user-supplied text as input, including abstracts, full-text documents or Web pages. Within seconds the text is analyzed and a ranked listing of subject terms results. The 18,000 terms of the NASA Thesaurus serve as the foundation for the extensive knowledge base.

Using this established vocabulary of terms, Machine Aided Indexing provides valuable assistance in assuring that technical documents and other scientific and technical information data are uniformly and consistently accessible.

Traditional users of the NASA Thesaurus should note that the new tool incorporates a fully searchable thesaurus display module, allowing word-search, browsing and full hierarchical display including over 4,000 definitions. In addition, since the Web-based tool is centrally hosted, the Thesaurus data is always completely up to date, eliminating the need to consult supplements. These features make the application the most user-friendly form of the NASA Thesaurus available.

The Web-based NASA Thesaurus Machine Aided Indexing tool is available to all NASA users with a "NASA.gov" domain. The application is at: <http://www.sti.nasa.gov/nasaonly/webmai>, or <http://www.sti.nasa.gov/>.

It can also be accessed from the Technical Publications or Marshall Technical Library Web pages via the Scientific and Technical Information link in the Marshall Integrated Document Library at: <http://inside.msfc.nasa.gov/MIDL/>

For more information, call Michael Genuardi at (301) 621-0114 or send e-mail to: [mgenuardi@sti.nasa.gov](mailto:mgenuardi@sti.nasa.gov)

## Black History Month events continue

Special events marking Black History Month continue at the Marshall Center. On Feb. 22, Marshall employees will dine while listening to live entertainment during Jazz Café from 11:15 a.m. to 12:15 p.m., in the cafeteria of Bldg. 4203.

Marshall employees will also participate in "The Year of the Child" initiative with a visit to Stone Middle School on Feb. 27. As part of a community outreach effort, the program is aimed at creating a scientific yearning in grade school children. Students will be introduced to scientific principles by using hands-on demonstrations; they will learn about NASA "Spin-off" technologies, and discuss non-technical career opportunities with NASA.

Closing ceremonies for Black History Month will be at 9 a.m. Feb. 28, in Morris Auditorium. Speaking will be Vernon Jarrett, creator of Afro-Academic, Cultural, Technological and Scientific Olympics (ACT-SO). A program created in 1977 for young black academic achievers, and adopted by the national office of the NAACP. Jarrett is also a commentator on race relations, politics, urban affairs and African-American history.

Also at the closing ceremony, committee leaders will recognize winners of the poster contest for grades 3-5, essay contest for grades 9-12 and creative arts contest for grades 9-12.

Following the Morris Auditorium event, Jarrett will conduct a mentoring workshop from 1-3 p.m. in Bldg. 4203, room 5002.

For more information, call James Bailey at 544-2523.

## Safety Office offers tips to avoid falling on stairs

Stairs can be dangerous! Three cases of Marshall employees falling on stairs have been reported this fiscal year. In two of the three cases, surgery was required.

Slipping, carrying an oversized load and not holding the handrail have been some of the causes.

### What you can do:

- Raise your awareness when using stairs. Stairs can be safe if you just take your time and watch your step!
- Hold the handrail.
- If you're carrying a load that will not permit holding the handrails or that blocks your view, take the elevator, get someone to help you or, if possible, divide the load and take multiple trips.



Photo by Dennis Olive, NASA/Marshall Space Flight Center

### Testing, testing

A 48-inch modified NASA motor casing was installed recently at the Solid Propellant Test Article test stand at Marshall. The test — to be conducted in early March — is part of a series of tests that simulate solid rocket motor environment for material evaluation. The motor case will hold two 5,500-pound solid propellant cartridges. The test fires for 30 seconds and produces 100,000 pounds of thrust.

## Cramer congratulates Marshall employees, contractors on Destiny

*Editor's note: The following transcript is of a speech delivered to Congress by U.S. Rep. Bud Cramer of Alabama on the successful installation of the Destiny Laboratory Module.*

I rise to congratulate the NASA employees and contractors at the Marshall Space Flight Center for their role in the successful delivery of NASA's Destiny Laboratory Module, the second of the U.S. pressurized modules, to the International Space Station. I am proud to say that the extremely talented men and women of The Boeing Co. built Destiny in my district at the Marshall Center. This includes the successful design, development, assembly, integration and testing of Destiny, as well as its delivery to Kennedy Space Center in November 1998.

The Destiny Laboratory, the long-awaited centerpiece of the Space Station, will allow the United States and its international partners to perform fundamental science experiments around-the-clock in the microgravity environment of space. This state-of-the-art module has a capacity of 24 rack locations, of which 13 are especially designed to support important scientific research. Once these racks arrive on later Shuttle flights, scientists can begin fundamental long-term research in space that can help improve the quality of human life back on Earth. Some of the first experiments will focus on the growth of proteins in the absence of the effects of gravity, hopefully leading to a better understanding of the true structure of harmful viruses that develop under strong gravitational effects on Earth. The Station will also allow researchers to study how the human body is affected by long-term exposure to the low-gravity environment of space, which is a crucial first step in establishing a human presence elsewhere in our solar system.

While Destiny is primarily intended to be the key U.S. science facility onboard Station, the addition of this engineering marvel to the current Space Station configuration on-orbit will also expand the Station's power, life support and attitude control capabilities. It will enable the transfer of flight control responsibilities from the Russians to NASA personnel, providing command and control capability for NASA's Mission Control in Houston. The Station had been under Russian command and control since the launch of the Russian-built Zarya Module in November 1998. The addition of the Destiny Laboratory, which is 28 feet in length and 14 feet in diameter, will also give Station occupants more habitable space than was available aboard Skylab or Mir.

The launch of Destiny now allows NASA to focus on providing other high-priority capabilities necessary to complete the Space Station. One of these capabilities will be provided by the U.S. Propulsion System, and is necessary to eliminate our dependence on the propulsion systems onboard the Russian Service Module and the regular launch of Russian Progress vehicles. It is also time for NASA to aggressively move forward with the U.S. Habitation Module, which would provide safe living quarters for the full complement of seven Station inhabitants. This is the module that will provide for the crew and enable a full vigorous science research program to bring about the expected return on the taxpayer's investment in this unique national resource. The Habitation Module and much of the Propulsion System will be built at the Marshall Center by Boeing — the same highly skilled team that also constructed the U.S. Unity node — and therefore I believe they will be in good hands.

North Alabama has a long heritage of spacecraft construction, starting with the rockets that placed men in Earth orbit and eventually on the Moon. I am proud to congratulate the world-class Space Station team in North Alabama for continuing this proud heritage of excellence with the development of the Destiny Laboratory Module. I expect it to be one of the highlights of this year's space program.

## Chandra Observatory finds most distant X-ray cluster

The most distant X-ray cluster of galaxies yet has been found by astronomers using the Marshall-managed Chandra X-ray Observatory. Approximately 10 billion light-years from Earth, the cluster 3C294 is 40 percent farther than the next most distant X-ray galaxy cluster. The existence of such a distant galaxy cluster is important for understanding how the universe evolved.

Chandra's image reveals an hourglass-shaped region of X-ray emission centered on the previously known central radio source. This X-ray emission extends outward from the central galaxy for at least 300,000 light years and shows that the known radio source is in the central galaxy of a massive cluster.

Images associated with the release are available at: <http://chandra.harvard.edu> and <http://chandra.nasa.gov>

# Be aware of signs of stress and what to do about it

**S**tress is an everyday part of life. Some of it is good; some of it bad. But if you know what to look for, you can control how you react to stresses at work and at home.

## Physical signs

Some physical signs of stress to look for include excess weight for your age and height; high blood pressure; lack of appetite; a desire to eat as soon as a problem arises; frequent heartburn; chronic diarrhea or constipation; inability to sleep; a feeling of constant fatigue; frequent headaches; a need for aspirin or some other medication daily; muscle spasms; a feeling of fullness although you have not eaten; shortness of breath; a liability of fainting or nausea; an inability to cry to a tendency to burst into tears easily; persistent sexual problems such as impotence, frigidity or fear; and excessive nervous energy which prevents sitting still and relaxing.

## Mental signs

Stress manifests in not only physical signs, but mental signs as well. Those include a constant feeling of uneasiness; constant irritability with family and work associates; boredom with life; a recurring feeling of being unable to cope with life; anxiety about money; morbid fear of disease, especially cancer and heart disease; fear of death — either your own or someone else's; a sense of suppressed anger; an inability to have a good laugh; a feeling of being rejected by your family; a sense of despair at being an unsuccessful parent; dread as the weekend approaches; reluctance to take a vacation; a feeling you can't discuss your problems with anyone; an inability to concentrate for any length of time or to finish one job before beginning another one; or a terror of heights, enclosed spaces, thunderstorms or earthquakes.

## Handling stress

There are many ways to handle stress: Recognize and accept your limits; balance work and recreation; develop a sense of humor; be empathetic and forgiving; be positive and optimistic; learn flexibility; accept what you cannot change; develop friendships; exercise; learn to relax; establish routines; and learn to plan.

Some practical coping skills include organize your day by those things you have to do; don't rely on your memory; make duplicates of keys; think of waiting as an opportunity to relax; plan time to eat, exercise and rest; learn to say "no;" learn to say

"I need help;" get unpleasant jobs done first, if possible; eliminate or restrict caffeine, tobacco and alcohol; practice relaxation during the day; start a journal; find a supportive, objective party to talk to regularly; learn to live one day at a time; and do something special for yourself on a regular basis.

## Getting help

If you are experiencing any of the symptoms listed above, and you need help, Dr. Bruce Mather, Marshall's counseling psychologist, is available to provide initial short-term confidential counseling and/or appropriate referral to outside sources for those needing assistance. He is located in the Medical Center, Bldg. 4249, or can be reached by phone at 544-7549.

The Marshall Center also offers after-hours employee assistance. This service is through a professional counseling service, and they will be able to assist those calling through a crisis event and will be able to offer assistance on other issues. The phone number to call for this assistance after regular work hours and on weekends is 1-888-438-3115.

## Getting the right balance between work and home

**C**ompared to 25 years ago, the typical family puts in 1,000 more hours a year at work, and many work two or more jobs. So it's no wonder that finding a balance between work and home life is precarious.

But balance is essential to our well-being and our ability to perform well at home and at work.

Here are five ways to get a better footing:

**Simplify.** Need help with housecleaning? Consider hiring a cleaning person once a week. Feel like you don't have time? Say "no" to things you don't want to do or don't have time to do. Don't make commitments unless they're important to you.

**Be grateful.** Even in the midst of the most hectic and stressful times of life, there are things for which we can be thankful. Reflecting on the good things in our lives helps keep an all-important balance in our outlook.

**Be a kid and play.** Get down in the dirt and help the kids make mud pies, watch a movie with them, have a long chat over coffee with your teen. Give your family one-on-one time.

**Pay attention to yourself.** If you don't stay healthy, you'll be less able to handle the stress of work and home.

**Stop procrastinating.** It takes more energy fretting over not doing a project than actually doing it. So, save your energy for better things and just get started.

— Adapted from *Parentsplace.com Web site*

## Obituaries

**Maroney, Carl H., 67**, of Mulberry, Tenn., died Feb. 11. He retired from Marshall in 1995 where he worked as a supervisor for technical management systems. He is survived by his wife, Marian Maroney.

**Quinn, Alberta W., 72**, of Madison, died Feb. 12. She retired from Marshall in 1989 where she worked as a supervisor on manned systems. She is survived by her husband, George L. Quinn.

## Training

### *Systems engineering seminar*

A systems engineering seminar is being held on four consecutive Saturdays beginning Feb. 24 at the University of Alabama in Huntsville. The seminar will help improve understanding within the local engineering profession of the principles, concepts and requirements of effective systems engineering practices, and how it must be applied through the life of a project to bring about program success. For more information, call Thom Holden at 544-7526. Register on the Web at: <http://eodd.msfc.nasa.gov/Seminar>

### *Cooperative agreements class*

There will be a cooperative agreements class conducted by Phil Taylor from 8 a.m.-4 p.m. Feb. 28 in Bldg. 4200, room G-13-C. This is the only time this class will be taught this year. Registration is via AdminSTAR.

### *Budget, program analysis class*

Budget and Program Analysis Using Microsoft Excel will be taught by Management Concepts from 8:30 a.m.-4:30 p.m. March 5-7 in Bldg. 4200, room G-13-A. Registration is via AdminSTAR.

### *Electrical measurement systems class*

The Tustin Technical Institute will present, "Instrumentation for Electrical Test And Measurement," Feb. 26-28 at the Marshall Center. The course provides a basic understanding of electrical measurement systems; alerts students to many varieties of meters, scopes and transducers available, their operating principles, strengths and weaknesses; and gives students enough applications information so they can select optimum meters, transducer, amplifier, recording and readout devices to assemble a system for routine measurements of electrical phenomena. Enroll via AdminSTAR. For more information, call Ela Washington at 544-1164.

### *Contracting professionals seminar*

The Huntsville Chapter of the National Contract Management Association will present, "NES 2001, "The Contracting Professional as a Risk Manager," March 1, at Trinity United Methodist Church. This one-day seminar is designed to enhance contracting professionals' understanding of the big picture and the total lifecycle of a program, to assure more effective interaction with internal and external customers and to help them in understanding how other departments' needs impact contract requirements. Pre-registration is required. More information and the registration form are available on the Web at <http://www.ncmahsv.org>

## MARS golf club announces 2001 tournament schedule

The MARS Golf League has a full schedule planned for the 2001 golf season. Eight events will be conducted in a variety of tournament formats as listed below.

The Mars Club is open to all NASA employees, on-site contractor personnel and NASA retirees. New players are encouraged to call Joey Butler at 544-3808 to verify eligibility and to establish a club handicap.

Active club members entering tournaments may also enter their spouses and their dependent children between 16 and 22.

### **MARS golf schedule for 2001**

- A handicap tournament will be played at 8 a.m. March 24 at the Huntsville Municipal Golf Course. Entry deadline is March 16.
- A skins tournament will be played at 7:30 a.m. April 21 at Goose Pond Plantation. Entry deadline is April 13.
- A two-person best score tournament will be played at 7 a.m. May 19 at Guntersville State Park. Entry deadline is May 11.
- A two-person best score tournament will be played at 8 a.m. June 16 at Chesley Oaks. Entry deadline is June 8.
- A handicap tournament will be played at 8:04 a.m. July 21 at Goose Pond. Entry deadline is July 13.
- A championship tournament will be played at 9 a.m. Aug. 11-12 at Colonial. Entry deadline is Aug. 3.
- A four-person scramble will be played at 10 a.m. Aug. 25 at Gunter's Landing. Entry deadline is Aug. 17.
- A two-person best score tournament will be played at 7:30 a.m. Sept. 8 at Point Mallard. Entry deadline is Aug. 31.

For more information, call Lee Foster at 544-1589, Joey Butler at 544-3808 or Robert Rutherford at 544-8117. For a copy of the golf club newsletter and schedule, send e-mail to Joanne M. Terek.

## 21 Marshall employees retire in 2000, 2001

Twelve Marshall employees retired in calendar year 2000. To date, nine employees have retired in 2001. Those employees are listed below.

### **2000**

Paul R. Allison, AD03  
Sharon T. Bendall, CD30  
June A. Booth, AD41  
John L. Frazier, QS10  
Ben F. Holland, QS20  
James Holley Jr., ED33  
Ronald L. Nichols, MP51  
Carl E. Rickard, MP51  
James R. Riquelmy, TD12  
Daniel T. Scott, AD33  
Nobie H. Stone, SD50

Bobby W. Wiggins, QS10  
**2001**  
Carmelo J. Bianca Jr., ED22  
James F. Blanche, ED16  
Salvadore V. Caruso, ED30  
George M. Goode, ED13  
Carolyn S. Griner, DD01  
Connie S. McDaniel, QS10  
James C. Pierce, QS22  
Kenneth Reed, ED15  
Glynda S. Thomas, DD01

## Center Announcements

### *Starship 2040 exhibit at UAH*

**S**tarship 2040, Marshall's traveling exhibit that shows what commercial spaceflight might be like in 40 years, will be at the University of Alabama in Huntsville from 8 a.m.-3 p.m. Feb. 22 in front of the Engineering Building on campus.

### *Recycle alkaline batteries*

**A**lkaline batteries in sizes AAA, AA, C and D can be turned in for recycling at the substore in Bldg. 4471. To be more environmentally friendly, users can bring old batteries to the substore and exchange them for new ones. EG&G will properly dispose of the used batteries. For more information, call Farley Davis at 544-6935.

### *NASA CONNECT*

**T**he NASA CONNECT instructional video, "Patterns, Functions and Algebra: Wired for Space," is scheduled to air Centerwide at 11:30 a.m. Feb. 22. The program features magnetic levitation research and the Propulsive Small Expendable Deployer System (ProSEDS) experiment and Marshall physicist Les Johnson, and ProSEDS program manager Leslie Curtis. This episode of NASA CONNECT is funded by the Space Transportation Directorate, managed by CaER's Education Programs Department and produced by Marshall TV.

### *Earth Day 2001 logo contest*

**M**arshall civil servants and onsite contractors are invited to participate in the Earth Day T-shirt logo contest. The theme is "2001: An Earth Odyssey." The submission must be a picture on 8.5-by 11-inch white paper and must have no more than four colors. Each employee may enter as many designs as he or she likes. The winner of the contest will receive \$50. Please send all entries with your name and phone number on the back of the design to Reginald Alexander/TD52/Bldg. 4203/Room 6108A. Entries should be submitted no later than close of

business March 7.

### *AIAA Conference*

**T**he American Institute of Aeronautics and Astronautics is sponsoring the 20th Digital Avionics Systems Conference Space — Aviation's Next Frontier — at the Plaza Resort and Spa, Oct. 14-18 in Daytona Beach, Fla. This is also a call for participation: papers, tutorials and exhibits. To participate, contact Delisa Wilkerson/ED13 at: 544-4967 or-9582 or e-mail [delisa.wilkerson@msfc.nasa.gov](mailto:delisa.wilkerson@msfc.nasa.gov)

### Clubs and Meetings

### *AIAA lecture on Challenger*

**A**llan J. McDonald of Thiokol Propulsion will speak at the American Institute of Aeronautics and Astronautics (AIAA) dinner at 6:30 p.m. March 7 at the Redstone Arsenal Officers' and

Civilians' Club. McDonald, director of the Space Shuttle Solid Rocket Motor project at the time of the Challenger accident, will discuss lessons learned. Cost is \$18 or \$10 for full-time students. For reservations, call Alan Lowrey at (256) 461-4398.

### *NARFE meets*

**T**he National Association of Retired Federal Employees, Chapter 736, will meet at 11 a.m. Feb. 28 at Piccadilly in Decatur. For more information, call Marty Eddy at 773-4826.

### *Retiree Association spring social*

**T**he Marshall Retiree Association will hold its spring social at 6:30 p.m. March 1 at the Valley Hill Country Club. Dress is casual. Cost is \$16 per person. Call 881-2553 to make reservations by Feb. 27.



Photo by Doug Stoffer, NASA/Marshall Space Flight Center

### *Does this hurt?*

**Jennifer Hicks, a physical therapist with Huntsville Hospital, works with Pamela Cruse of Computer Sciences Corp. on a shoulder problem. Hicks provides physical therapy services for Marshall employees and contractors at the Marshall Physical Fitness Center. If you have seen your physician and have been prescribed therapy, call 517-7101 to set up an appointment with Hicks.**

## Employee Ads

## Miscellaneous

- ★ Dual king electric adjustable beds, remote control, massage. 881-3353
- ★ Columbia men's ski jackets, large: black, \$120, gray shell, \$35; women's blue bibs, medium, \$10. 882-3983.
- ★ AKC standard poodle puppies, five males, \$600 each. 256-753-2278
- ★ Plexiglas panels for Kenmore refrigerator doors, black, 63.25"x17.75", 13"x28.375", 13"x20.125", \$10. 895-6722
- ★ Two adult life jackets, \$30 each or \$50 for both. 881-9421
- ★ Accessories for a Nissan Frontier King-Cab; Nerf steps, hitch, AM/FM/CD stereo. 461-9662
- ★ Pine bed w/bookcase headboard/footboard, \$50; Prelude oversize titanium woods and cobra irons, \$350. 883-8658
- ★ Lazy-Boy recliner/rocker, burgundy leather, big man size, \$450. 881-5093
- ★ Sheets of Apollo 15 stamps for sale. 423-4525
- ★ Ivory leather sofa, \$200; two end tables, \$100; oak coffee table, \$75; quilt rack, \$30. 464-6933
- ★ Older model Golden Ram, 2-SW, new grips, Sunday bag, \$125; Adams Tight-Lie Titanium driver, 9 deg, \$190. 828-0801
- ★ 1992 Suzuki motorcycle, GSF-400N Bandit, red, 14K miles, \$2,200. 859-0729
- ★ This-End-Up furniture: two children's chairs, \$40; toy chest, \$75. 534-7981
- ★ Baby crib, white, w/mattress and bedding, \$150; changing table, white, \$50. 461-8359
- ★ Sears gas Weedwacker, \$50; sewing machine, \$45; Early American sofa, \$175; firewood rack, \$20. 881-9404
- ★ Stock gap/cattle guard, 16'x7', all-steel heavy-duty welded pipe, \$100. 931-732-4742

## Vehicles

- ★ EZ-GO industrial turf maintenance truck,

18HP, 5-speed, dump bed, 1,000 lb. Capacity, \$1,400. 464-5819

- ★ 1989 Buick Park Avenue, 127K miles, all power accessories, \$3,950. 534-7791/656-8676
- ★ 1995 Isuzu Rodeo LS, 5-speed manual, V-6 3.2L, red/gray, new tires 70.5K miles, \$11,000 obo. (256) 216-0093 leave message
- ★ 1997 Dodge Intrepid, 78K miles, silver, good tires, runs good, power windows and locks, \$7,300. 891-1073
- ★ 1968 Ford pickup, \$600; 1971 Ford pickup, \$700. 720-8606
- ★ 1995 Dodge Ram 1500, 5.9L V-8, camper shell, bed-liner, 101K miles, \$9,500 obo. 337-7791/(256) 498-3229
- ★ 1994 Chrysler LHS, temp control a/c, ABS, AM/FM/cassette, dark green, 87K miles, \$7,500 obo. 883-8989
- ★ 1996 Nissan Maxima SE, 4-door, 5-speed, cobalt blue, 3.0L V-6, a/c, ABS, FM/AM/CD/cassette, 70K miles, \$13,000 obo. 881-9749
- ★ 1996 Gulfstream Innsbruck travel trailer, 21", bath w/shower/tub, includes extras, \$7,900. 881-5093
- ★ 1991 Cougar, V-6, auto, all power, leather, cruise, digital dash, cassette, 128K miles, \$3,499. 539-3166
- ★ 1998 Honda Civic LX sedan, PW/PDLs, automatic, cruise, silver, new tires, 47K miles, \$10,900. 230-6846
- ★ 1993 Chevrolet C20 conversion van, 59K miles, maroon, TV, \$7,950. 574-5185
- ★ 1996 Chrysler Town and Country, white, non-smoker, 67K miles, Infinity sound system, built-in child seats, \$11,250. 325-6000
- ★ 1987 Nissan pickup, 137K miles, one owner, tool box, good tires, 5-speed, \$1,200. 837-8967
- ★ 1995 Ford Windstar, leather quad seats, rear air, maintenance records, 79K miles, \$8,700. 881-1005
- ★ 1994 Ford Explorer XL, 4-door, automatic, 160K miles, \$6,200. (931) 433-9781

## Wanted

- ★ Utility trailer, 5x10, good condition, reasonably priced. 232-1171

## Found

- ★ Gift card, credit card type, Bldg. 4312; two flashlights and glasses. Call 544-4758 to identify/claim

## See Mir, International Space Station Thurs.

Mir and the International Space Station will be visible Feb. 22 evening between 6 and 8 p.m. Employees should check the Internet at:

<http://liftoff.msfc.nasa.gov/>

Enter your zip code to get specific viewing times.

## Thank you

I want to take this opportunity, once again, to express my sincere appreciation for all the leave donations, money, cards and prayers that we have received during Lindsey's illness. We are so happy to report that she is now in remission and near the end of her treatments. Although her eyesight has not returned, the doctors remain optimistic. We ask for your continued prayers and support that she will continue to improve and regain her vision. We are so blessed to have such wonderful friends at Marshall. The support to our family has been overwhelming. Thank you so very much.

— Terry Jones, ED01

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